Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Proposed

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Duke Energy Kentucky** **East Bend Station**
Mailing Address:	**139 East Fourth Street Room 552-A** **Cincinnati, Ohio 45202**
Source Name:	**Duke Energy Kentucky** **East Bend Station**
Mailing Address:	**6293 Beaver Road, Union, Kentucky 41091**
Source Location:	**6293 Beaver Road, Union, Kentucky 41091**
Permit ID:	**V-06-038**
Agency Interest #:	**176**
Activity ID:	**APE20040006**
Review Type:	**Title V/Operating**
Source ID:	**21-015-00029**
Regional Office:	**Florence** **8020 Veterans Memorial Drive W.** **Florence, KY 41042** **(859) 525-4923**
County:	**Boone**
Application Complete Date:	**October 1, 2005**
Issuance Date:	**June 19, 2007**
Revision Date:	
Expiration Date:	**June 19, 2012**

John S. Lyons, Director
Division for Air Quality

Revised 09/29/06

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Rev #	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
----	**Initial Issuance**	**E954**	**2/11/1997**	**6/4/1998**	V-97-015
A/R	**Acid Rain**	**A-98-014**		**3/5/1999**	A-98-014R2
1	**Significant revision**	**54926/55684**		**8/12/2003**	V-97-015R2
	Renewal	**APE2004006**	**10/1/05**	**6/19/2007**	V-06-038

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions unit: 02 (02) - Unit 2 Indirect Heat Exchanger

Description:
Pulverized coal-fired, dry bottom, wall-fired unit with an electrostatic precipitator (ESP), flue gas desulfurization (FGD), Selective Catalytic Reduction (SCR) and low nitrogen oxides modified burners
Number two fuel oil used for startups and flame stabilization
Secondary Fuel: petroleum coke
Maximum continuous rating: 6,313 MMBtu/hour
Construction commenced: 1976

Applicable Regulations:

401 KAR 59:015, New Indirect Heat Exchangers
40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators, for an emissions unit greater than 250 MMBtu /hour and commenced after August 17, 1971
401 KAR 50:012, General application
401 KAR 51:017, Prevention of significant deterioration of air quality
401 KAR 51:160, NO_x requirements for large utility and industrial boilers; incorporating by reference 40 CFR 96
401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFR Parts 72 to 78
40 CFR Part 64, Compliance Assurance Monitoring (CAM)

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   a) Pursuant to 401 KAR 59:015, Section 4(1)(b), and 401 KAR 51:017, particulate emissions shall not exceed 0.1 lb/MMBtu based on a three-hour average.

   b) Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed twenty (20) percent opacity based on a six-minute average except:

      i) a maximum of twenty-seven (27) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes.

      ii) Emissions from an indirect heat exchanger shall not exceed 20 percent opacity based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) Pursuant to 401 KAR 59:015 Section 5(1)(b) and 401 KAR 51:017, the sulfur dioxide emissions shall not exceed 1.2 lbs/MMBtu based on a three-hour average.

d) Pursuant to 401 KAR 50:012, nitrogen oxides emissions shall not exceed 0.5 lbs/MMBtu based on a thirty (30) calendar day continuous rolling average.

***Compliance Demonstration Method*:**
To provide assurance that the particulate and the visible emission limitations are being met the permittee shall comply with the **3. Testing Requirements** below. To provide assurance that sulfur dioxide and nitrogen oxides emission limits are being met the permittee shall comply with the **4. Specific Monitoring Requirements** below.

3. Testing Requirements:

a) Pursuant to 401 KAR 50:045, the permittee shall submit within six months of the issuance date of the final permit a schedule, to conduct a performance test for particulate compliance within one year of issuance of this permit.

b) Testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.

c) In accordance with **4.b Specific Monitoring Requirements**, the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish or re-establish the correlation between opacity and particulate emissions.

d) If no additional stack tests are performed pursuant to **4.b(ii) Specific Monitoring Requirements**, the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the applicable standard.

e) If no EPA Reference Method 9 tests are performed pursuant to **4.a(ii) Specific Monitoring Requirements**, then the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every 14 boiler operating days when operating, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9's are completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) Pursuant to 401 KAR 59:015, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 26, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding exempted time periods, if any three consecutive six-minute average opacity values exceed the opacity standard, the permittee shall, as appropriate:

(i) Accept the readout from the COM as an indicator of equipment performance and perform an inspection of the COM and/or the control equipment and make any repairs or;

(ii)Within thirty (30) minutes after the third consecutive COM indicated exceedance of the opacity standards, if emissions are visible, initiate a determination of opacity using Reference Method 9. Also within thirty (30) minutes after the third consecutive COM indicated exceedance, inspect the COM and/or the control equipment, and initiate any repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

b) Pursuant to 401 KAR 52:020, Section 26, to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on June 18, 2004, opacity shall be used as an indicator of particulate matter emissions. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. There may be short-term exceedances during the testing period required to establish the opacity indicator level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:

(i) If any three (3) hour average of opacity values exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.

(ii) If five (5) percent or greater of the COM data (three (3) hour average of opacity values) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G(a)(17) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) The permittee shall monitor the ESP primary/secondary current and voltage on a daily basis.

d) Pursuant to 401 KAR 59:015, Section 7 and 401 KAR 52:020, Section 26, continuous emission monitoring systems shall be installed, calibrated, maintained, and operated for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 59:015, Section 7 particularly, performance specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the continuous emission monitoring systems shall be used to satisfy CAM requirements.

e) Pursuant to 401 KAR 52:020, Section 26, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM) Excluding the startup and shut down periods, if any 3-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the CEM system and make any necessary repairs as soon as practicable.

f) Pursuant to 401 KAR 52:020, Section 26, to meet the monitoring requirement for nitrogen oxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 3-hour average nitrogen oxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

g) Pursuant to 401 KAR 59:015, Section 7(3), for performance evaluations of the sulfur dioxide and nitrogen oxides continuous emission monitoring system as required under 401 KAR 59:005, Section 4(3) and calibration checks as required under 401 KAR 59:005, Section 4(4), reference methods 6c or 7e shall be used as applicable as described by 401 KAR 50:015.

h) Pursuant to 401 KAR 59:015, Section 7(3), sulfur dioxide or nitric oxide (nitrogen oxides), as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60, filed by reference in 401 KAR 50:015.

i) Pursuant to 401 KAR 59:015, Section 7(3), the span value for the continuous emission monitoring system measuring opacity of emissions shall be eighty (80), ninety (90), or one-hundred (100) percent and the span value for the continuous emission monitoring system measuring sulfur dioxide and nitrogen oxides emissions shall be in accordance with 401 KAR 59:015, Appendix C, or 40 CFR 75, Appendix A.

j) Continuous emission monitoring data shall be converted into the units of applicable standards using the conversion procedure described in 401 KAR 59:015, Section 7(5).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

k) Pursuant to 401 KAR 59:015, Section 7(3), for an indirect heat exchanger that simultaneously burns fossil fuel and nonfossil fuel, the span value of all continuous monitoring systems shall be subject to the Division's approval.

l) The permittee shall monitor the duration of the start up

m) See Section D.

5. Specific Record Keeping Requirements:

a) Pursuant to 401 KAR 59:005, Section 3 (4), the owner or operator of the indirect heat exchanger shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection.

b) Pursuant to 401 KAR 59:005, Section 3(2), the owner or operator of this unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

c) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator level in each calendar quarter.

d) Records of primary/secondary voltage and current and results of compliance tests shall be maintained with long-term operational records for a period of five (5) years.

e) The permittee shall keep visible observation records and Method 9 observations in a designated logbook and/or an electronic format. Records shall be maintained for five (5) years.

f) The permittee shall record the duration of start up.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

a) Pursuant to 401 KAR 59:005, Section 3 (3), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. The averaging period used for data reporting should correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the pollutant/source category in question. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

(i) The magnitude of the excess emission computed in accordance with 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

(ii) All hourly averages shall be reported for sulfur dioxide and nitrogen oxides monitors. The hourly averages shall be made available in the format specified by the Division.

(iii) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

(iv) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(v) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b) Pursuant to 401 KAR 59:015, Section 7(7), for the purposes of reports required under 401 KAR 59:005, Section 3(3), periods of excess emissions that shall be reported are defined as follows:

i) Excess emissions are defined as any six minute period during which the average opacity of emissions exceeds twenty percent opacity, except that one (1) six (6) minute average per hour of up to twenty-seven (27) percent opacity need not be reported.

ii) Excess emissions of sulfur dioxide are defined as any three (3) hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable sulfur dioxide emissions standard.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iii) Pursuant to 401 KAR 50:012, General application, excess emissions for the emissions unit using a continuous monitoring system for measuring nitrogen oxides are defined as any thirty (30) day period during which the average emissions (arithmetic average of thirty contiguous calendar days) exceed the applicable nitrogen oxides emissions standard.

c) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.

d) See Section D

e) For exceedances that occur as a result of start-up, the permittee shall report:
(i) The type of start-up (cold, warm, or hot);
(ii) Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP), SO2 scrubber (FGD), and selective catalytic reduction (SCR) shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance (e.g., routine scheduled service, replacement of parts, etc.) of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 03 (03) - Coal Handling Operations

Description:

Equipment includes: barge unloader/receiving operations ((03-01) rated at 4500 tons/hour), stockpile operations (03-09, 03-10), conveyor E ((03-02) rated at 4500 tons/hour), and carry all bin with load-in (03-04) and load-out (03-05) (rated at 4500 tons/hour).
Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality;
401 KAR 51:017, Prevention of significant deterioration of air quality.

1. **Operating Limitations:**
   a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

      1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

      2. installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

      3. the maintenance of paved roadways in a clean condition;

      4. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.

   b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

   c) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway, pursuant to 401 KAR 63:010, Section 4. [401 KAR 63:010]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

Records of the coal unloaded and processed (tonnages) shall be maintained on a weekly basis.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The watering and compaction on the stockpile shall be used and operated to maintain compliance with permitted emission limitations and applicable requirements, in accordance with standard operating practices.

b) Records regarding the maintenance and operation of the control equipment and measures mentioned in Subsection 7(a) shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 04 (03) - Coal crushing and processing operations

Description:

Equipment includes:	Rated at (Tons/hour):
Conveyors A, B, C, D, F-1, G-1 and transfer points (03-02)	4500 tons/hour each
Primary crushers (two) (03-03)	1000 tons/hour each
Coal bunker load-in (03-06)	2000 tons/hour
Coal pile load-in (03-07)	4500 tons/hour
Coal pile reclaim (03-08)	4500 tons/hour

Construction commenced: 1976

Applicable Regulations:

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Y, Standards of performance for coal preparation plants, for emissions units commenced after October 24, 1974, and
401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Y, 40 CFR 60.252, the owner or operator subject to the provisions of this regulation shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

3. **Testing Requirements:**

   a) Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60 Subpart Y, 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

   b) If no additional Method 9 performance tests are performed pursuant to **4.c) Specific Monitoring Requirements**, the permittee shall conduct at least one Method 9 evaluation on each emission point stack, each calendar quarter to demonstrate compliance with the particulate standard.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) The permittee shall monitor the amount of material processed and the hours of operation of the unit on a weekly basis;

b) Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed, opacity shall be used as an indicator of particulate matter emissions. The permittee shall perform a visible observation of the opacity of emissions from each stack on a daily weekday (Monday thru Friday) basis and maintain a log of the observation. If visible emissions from a stack are seen, then an inspection shall be initiated of the control equipment for any repairs.

c) Pursuant to 401 KAR 52:020, Section 26, if during qualitative visible observations, visible emissions from an affected facility are seen at least once each week for two consecutive weeks, then the opacity of emissions shall be determined by EPA Reference Method 9 at least once during that two-week period while the affected facility is operating at representative capacity or at a frequency requested by the Division.

5. Specific Record Keeping Requirements:

The permittee shall record the amount of coal received and processed on a weekly basis for emissions inventory purposes.[401 KAR 52:020 Section 26]

6. Specific Reporting Requirements:

Refer to Section F. [401 KAR 52:020 Section 26]

7. Specific Control Equipment Operating Conditions:

a) The enclosure and baghouses on the two crushers, and the enclosures and baghouses on the conveyors and transfer points, baghouses for the coal bunker load-in, and baghouses (same as for crushers) for the coal pile reclaim shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) Refer to Section E. [401 KAR 50:055 Section 2(5)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 09 (08) - Main Flyash Storage Silo Loadout to Dump Trucks

Description:
Operating rate: 150 Tons/hour
Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

2. installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

3. the maintenance of paved roadways in a clean condition;

4. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.

b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

c) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway, pursuant to 401 KAR 63:010, Section 4. [401 KAR 63:010]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

Records of the flyash processed (tonnages) shall be maintained for emission inventory purposes.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) Adequate control measures shall be used to maintain compliance with permitted applicable requirements, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and operation/use of the control equipment and measures mentioned in Subsection 7(a) shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 10 (09) - Flue Gas Desulfurization Sludge Fixing Plant

Description:
Equipment includes: conveying, transfer points, and pug mills
Construction commenced: 1976

Applicable Regulations:
401 KAR 59:010, New process operations, applicable to an emissions unit commenced on or after July 2, 1975

1. **Operating Limitations:**
   Operating rate: 250 tons/hour

2. **Emission Limitations:**

   a) Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air shall not exceed [$17.31(P)^{0.16}$] pounds per hour based on a three-hour average where P is the processing rate in tons per hour. (The permittee may assure compliance with the particulate standard by calculating emissions using the following formula: pounds PM per hour = Material throughput in Tons/Hour x 0.012 pounds per ton x (1-0.91).)

   b) Pursuant to 401 KAR 59:010, Section 3(1)(a) visible emissions shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

3. **Testing Requirements:**

   None

4. **Specific Monitoring Requirements:**

   a) The permittee shall monitor the processing rate and hours of operation on a weekly basis.

   b) Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed, opacity shall be used as an indicator of particulate matter emissions. The permittee shall perform a visible observation of the opacity of emissions from each stack on a daily weekday (Monday thru Friday) basis and maintain a log of the observation. If visible emissions from a stack are seen, then an inspection shall be initiated of the control equipment for any repairs.

   c) Pursuant to 401 KAR 52:020, Section 26, if during qualitative visible observations, visible emissions from an affected facility are seen at least once each week for two consecutive weeks, then the opacity of emissions shall be determined by EPA Reference Method 9 at least once during that two-week period while the affected facility is operating at representative capacity or at a frequency requested by the Division.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

a) Records of the weekly material processed (tonnages) and the weekly hours of operation shall be maintained.

b) Records documenting the results of each opacity reading by EPA Reference Method 9 shall be maintained.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The enclosures shall be used on all conveyors and transfer points, and enclosure and two hydrostatic rotoclones (wet type dust collectors) shall be used on the two pug mills and operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and operation and use of all control equipment in Subsection 7(a) shall be maintained.

c) See Section E. for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 11 (11) - Plant Roadways

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

2. the maintenance of paved roadways in a clean condition;

3. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.

b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

c) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway, pursuant to 401 KAR 63:010, Section 4. [401 KAR 63:010]

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

a) Records of the tonnage of materials hauled shall be maintained.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) Plant roadways shall be controlled with water to comply with 401 KAR 63:010.

b) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 12 (12) - Landfill Operations

Description:
Disposal rate of Poz-o-Tec: 500 tons/hour.
Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

2. installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

3. the maintenance of paved roadways in a clean condition;

4. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.

b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

c) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway, pursuant to 401 KAR 63:010, Section 4. [401 KAR 63:010]

2. Emission Limitations:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

Records of the disposal rate (tonnages) shall be maintained for emission inventory purposes.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) Watering shall be used to maintain compliance with applicable requirements, in accordance with standard operating practices.

b) Records regarding the maintenance and use of the control measures in Subsection 7(a) shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 13 (10) - Emergency Diesel Generator

Description:
Number two-fuel oil-fired unit
Maximum continuous rating: 7.7 MMBtu/hour
Construction commenced: 1976

Applicable Regulations:
The emissions unit is not subject to any applicable regulations.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**

   See Section F.

5. **Specific Record Keeping Requirements:**

   a) Records of the monthly amount of fuel used in gallons shall be maintained for emission inventory purposes.

   b) See Section F.

6. **Specific Reporting Requirements:**

   See Section F.

7. **Specific Control Equipment Operating Conditions:**
   NA

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 14 (04) - Lime Handling Operations (Fugitive Emissions)

Description:

Unit	Operating Rate in Tons/hour
Lime Barge Unloading Operations (04-09)	600
Lime Barge Unloader Hopper (04-10)	600
Main Lime Silo Truck Dump (04-12)	25
Main Lime Silo Truck Loading (04-14)	25
Dump Truck to Fix Plant Lime Hopper (Unloading) (04-15)	25

Construction commenced: 1976

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality;
401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

2. installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

3. the maintenance of paved roadways in a clean condition;

4. the prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or other earth moving equipment or erosion by water.

b) Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

c) No one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway, pursuant to 401 KAR 63:010, Section 4. [401 KAR 63:010]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

Records of the lime received and processed (tonnages) shall be maintained on a weekly basis for emission inventory purposes.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

NA

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit: 15 (01-022) – Synfuel Operations (PM and VOC Emissions)

Description:

	Unit	Operating Rate in Tons/hour
EP #01	Transfer Point 1 and Conveyor Belt	4500
EP #02, 03, and 19	Transfer Points 2 and 3, Stacking Tube, and Pile	4500
EP #04, 05, and 18	Transfer Points 4 and 5, and Front End Loader	500
EP #06	Transfer Point 6 and Receiving Hopper	500
EP #7	Transfer Point 7 and Conveyor to Screw	500
EP #8	Transfer Point 8 and Screw to One Mixer	500
EP #9	Transfer Point 9 and Mixer	506.25
EP #10	Transfer Point 10 and Conveyor	506.25
EP #11	Transfer Point 11 and Synfuel Pelletizer	506.25
EP #12	Transfer Point 12 and Conveyor from Pelletizer	506.25
EP #13	Transfer Point 13 and Conveyor to Plant	506.25
EP #14	Transfer Point 14 and Conveyor to Stacker	506.25
EP #20	Stacking Tube and Pile	506.25
EP #15, 16, and 17	Transfer Points 15 and 16, and Bulldozer	1000
EP #21	30,000-gallon Fixed Roof Synfuel Tank	6.25
EP #22	30,000-gallon Fixed Roof Synfuel Tank	6.25

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality;

40 CFR 60, Subpart Kb -- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (60.110b--60.117b)

1. Operating Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne.

Reasonable precautions shall include, when applicable, the application and maintenance of water, or suitable chemicals on materials stockpiles.

b) Pursuant to the request of the permittee, the maximum operating rate shall be 1.8×10^6 tpy of coal through the synfuel operations. This operating limit shall be based on processing rates for any twelve (12) consecutive months.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations (continued):

c) Pursuant to the request of the permittee, the maximum operating rate shall be 22,500 tpy total of binding agent through the two 30,000-gallon binding agent tanks and mixer. This operating limit shall be based on processing rates for any twelve (12) consecutive months.

Compliance Demonstration:
Compliance for a) – The permittee shall certify compliance with all the terms and condition contained in this permit. See Section F
Compliance for b) and c) - See Specific Monitoring and Record Keeping Requirements

2. Emission Limitations:

Pursuant to 401 KAR 63:010, Section 3, no person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

See Section F.

5. Specific Record Keeping Requirements:

a) Records of the coal received and processed (tonnages) shall be maintained on a monthly basis and kept for 2 years from the date of the activity.

b) Records of the binder type and the amount received and processed shall be maintained on a monthly basis and kept for 2 years from the date of the activity.

c) Pursuant to 40 CFR 60, Subpart Kb, the owner or operator of the two 30,000-gallon fixed roof storage tanks, used for storage of a volatile organic liquid with a maximum true vapor pressure less than 15 kPa, shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

d) The temperature of the binder in each tank and mixer shall be recorded weekly, or more often as necessary to make emission calculations, if constant temperatures are not achieved.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The watering and compaction on the stockpile shall be used and operated to maintain compliance with permitted emission limitations and applicable requirements, in accordance with manufacturer's specifications and/or standard operating practices.

b) See Section E for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The activities within this group have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020 Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any corrective actions taken for any abnormal visible emissions.

Description	Generally Applicable Regulation
1. Main fuel oil storage tank, 500,000 gallons capacity, point 05-01.	NA
2. Fuel oil day tank, 40,000 gallons capacity, point 05-02.	NA
3. Landfill garage fuel oil tank, capacity 6,000 gallons, point 05-03.	NA
4. Landfill portable fuel oil tank, 2,000 gallons capacity, point 05-04.	NA
5. Landfill garage portable fuel oil tank (yellow) 500 gallons capacity, point 05-06.	NA
6. Emergency diesel generator fuel oil tank, 500 gallons capacity, point 05-20.	NA
7. Diesel powered fire pump fuel oil tank, 500 gallons capacity, point 05-21.	NA
8. FGD fixing plant portable gasoline tank (red) 250 gallons capacity, point 06-07.	NA
9. Coal yard gasoline tank, 500 gallons capacity, point 06-09.	NA
10. Diesel powered fire pump, 285 horsepower, point 10-01.	NA
11. Flyash handling operations, pneumatic dry enclosed transfer, point 09 (08).	401 KAR 59:010/401KAR 63:010
12. Lime handling operations, other than point 14 (04).	401 KAR 59:010 and/or 401 KAR 63:010
13. Wet ash and ponded ash handling and management.	401 KAR 63:010
14. Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Description	Generally Applicable Regulation
15. The following equipment related to manufacturing and repair activities not resulting in the emission of hazardous air pollutants: brazing equipment, cutting torches, soldering equipment, welding equipment.	401 KAR 63:010
16. Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to one percent by volume.	NA
17. Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is on-site sewage treatment facility.	NA
18. Operations using aqueous solutions containing less than one percent volatile organic compounds excluding hazardous air pollutants.	NA
19. Maintenance activities associated with the repair of electrostatic precipitators, and scrubbers, and replacement of bags in baghouses, and replacement of filters, and repair of other filtration equipment.	401 KAR 63:010
20. Maintenance activities associated with heat exchanger cleaning and repair.	
21. Paved and unpaved roads and parking lots with public access.	401 KAR 63:010
22. Laboratory fume hoods and vents used exclusively for chemical or physical analyses.	NA
23. Combustion source flame safety purging on startup.	NA
24. Water based adhesives that are less than or equal to five percent by volume volatile organic compounds, excluding hazardous air pollutants.	NA
25. Unit 2 Mechanical draft cooling tower.	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate, sulfur dioxide, nitrogen oxides, and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
    a. Date, place as defined in this permit, and time of sampling or measurements;
    b. Analyses performance dates;
    c. Company or entity that performed analyses;
    d. Analytical techniques or methods used;
    e. Analyses results; and
    f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1) h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
    a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
    b. To access and copy any records required by the permit:
    c. Sample or monitor, at reasonable times, substances, or parameters to assure compliance with the permit or any applicable requirements.

    Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
    a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
    a. Identification of the term or condition;
    b. Compliance status of each term or condition of the permit;
    c. Whether compliance was continuous or intermittent;
    d. The method used for determining the compliance status for the source, currently and over the reporting period.
    e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Florence Regional Office
8020 Veterans Memorial Drive
Suite 110
Florence, Kentucky 41042

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
   d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
    a. Applicable requirements that are included and specifically identified in the permit and
    b. Non-applicable requirements expressly identified in this permit.

17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
None

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

2. The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permits contained in Section J of this document and the Phase II permit application (including the Phase II NO_x compliance plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
   e. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J – ACID RAIN PERMIT

TITLE IV PHASE II ACID RAIN

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) SO_2 allowances allocated under this permit and NOx requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II application, the Phase II NOx Compliance Plan, and the Phase II NOx Averaging Plan.

5) Summary of Actions

- **Statement of Basis:**

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

PERMIT (Conditions)

Plant Name: East Bend Station
Affected Unit: 2

2. SO_2 Allowance Allocations and NO_x Requirements for the affected unit:

SO_2 Allowances	**Year**				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	18,315*	18,315*	18,315*	18,315*	18,354*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_X emissions averaging plan for this unit. Under this plan, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/mmBtu. In addition, this unit shall not have an annual heat input less than 50,700,000 mmBtu. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by U. S. EPA may change under 40 CFR 73. In addition, the number of allowances actually held by an affected source in a unit may differ from the number allocated by U.S.EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

PERMIT (Conditions)

3. Comments, Notes, and Justifications:

1. Affected unit is one (1) dry bottom wall-fired boiler.

2. A NO_x Permit application for these units was received on June 16, 2003.

3. All previously issued Acid Rain permits are hereby null and void

4. Permit Application: Attached

The Phase II Permit Application the Phase II NOx Compliance Plan, and the Phase II NOx Averaging Plans are part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application, the revised Phase II NOx Compliance Plan, and the revised Phase II NOx Averaging Plan.

5. Summary of Actions:

Previous Actions:

1. Draft Phase II Permit (# A-98-014) was issued with the 1998 revised SO2 allowance allocations and NOx emissions standard for public comment on December 8, 1998.

2. Final Phase II Permit (# A-98-014) was issued with the 1998 revised SO2 allowance allocations and NOx emissions standard on March 9,1999.

3. Draft Phase II Permit (# A_98-014 Revision 1) was advertised in the 1999 revised SO2 allowance allocations and NOx emissions averaging plan for public comment on March 29, 2000.

4. Final Phase II Permit (# A-98-014 Revision 1) was issued with the 2000 revised SO2 allowance allocations and NOx emissions averaging plan.

5. Draft Phase II Permit (# A-98-014 Revision II) has been issued with the 2000 revised SO2 allowance allocations and NOx emissions averaging plan for public comment.

6. Final Phase II Permit (# V-97-015) has been issued with the 2000 revised SO2 allowance allocations and NOx emissions averaging plan.

Present Action:

Proposed Title V with Acid Rain Permit is being issued after public comment. [401 KAR 52:060]

SECTION K – NOx BUDGET

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Environmental and Public Protection Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:160, NOx requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C.

2) NO_x Budget Permit Application, Form DEP 7007EE

The NOx Budget Permit application for the electrical generating unit was submitted to the Division and received on June 16, 2003. Requirements contained in that application are hereby incorporated into and made part of this NOx Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3) Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process and any additional requirements or conditions.

Affected unit is COMB-01 (EU-02), which is a pulverized coal-fired, dry bottom, wall-fired unit with an electrostatic precipitator, scrubber with use of a lime slurry with a venturi quenching section, and low nitrogen oxides modified burners rated 6313 MMBtu/hour. The unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. The unit uses coal and pet coke as a fuel source, and is used as base load electric generating unit.

4) Summary of Actions

The NOx Budget Permit is being issued as part of the renewal Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100. [401 KAR 51:160]